

Exhibit B

Cyclohexanone

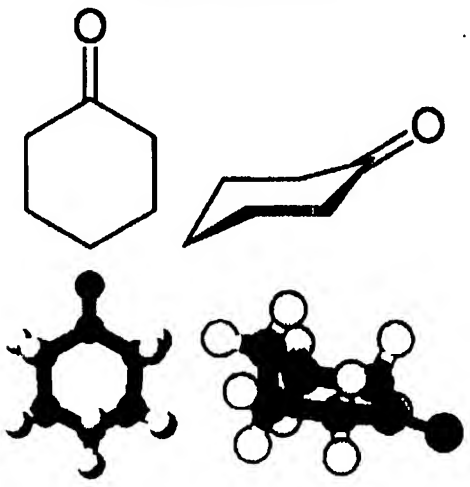

From Wikipedia, the free encyclopedia

Cyclohexanone (also known as oxocyclohexane, pimelic ketone, ketohexamethylene, cyclohexyl ketone or ketocyclohexane) is a six-carbon cyclic molecule with a ketone functional group. It is a colorless, oily liquid with an acetone-like smell. Over time, the color of the liquid changes to yellow. Cyclohexanone is slightly soluble in water (5-10 g/100 ml), but miscible with the most common organic solvents.

Cyclohexanone is employed as an industrial solvent and as activator in oxidation reactions. It is also used in the production of adipic acid, cyclohexanone resins, caprolactam and nylon 6.

External links

- International Chemical Safety Card 0425

| Cyclohexanone | |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  | |
| General | |
| Molecular formula | $\text{C}_6\text{H}_{10}\text{O}$ |
| SMILES | <chem>C1CCCCC1=O</chem> |
| Molar mass | 98.15 g mol^{-1} |
| Appearance | Colorless, liquid |
| CAS number | [108-94-1] |
| Properties | |
| Density and phase | 0.9478 g/ml , liquid |
| Solubility in water | Miscible |
| Solubility in ethanol | Miscible |
| Melting point | $-16.4\text{ }^{\circ}\text{C}$ |
| Boiling point | $155.65\text{ }^{\circ}\text{C}$ |
| Viscosity | 0.898 cP at $25\text{ }^{\circ}\text{C}$ |
| Thermodynamic data | |
| Standard enthalpy of formation $\Delta_f H^{\circ}_{\text{liquid}}$ | $-270.7\text{ kJ mol}^{-1}$ |
| Standard enthalpy of combustion $\Delta_c H^{\circ}_{\text{liquid}}$ | $-3519.3\text{ kJ/mol}^{-1}$ |
| Standard molar entropy $S^{\circ}_{\text{liquid}}$ | $+229.03\text{ J}\cdot\text{K}^{-1}\cdot\text{mol}^{-1}$ |
| Hazards | |
| EU classification | Harmful (Xn) |
| Flash Point | 44 C |
| NFPA 704 |  |

| | |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------|
| R-phrases | R10, R20 |
| S-phrases | (S2), S25 |
| Supplementary data page | |
| Structure and properties | n_D^{20} :1.4503, ϵ_r , etc. |
| Thermodynamic data | Phase behaviour Solid, liquid, gas |
| Spectral data | UV, IR, NMR, MS |
| Regulatory data | Flash point, RTECS number, etc. |
| Related compounds | |
| Related ketones | Cyclopentanone |
| Related compounds | Cyclohexanol |
| Except where noted otherwise, data are given for materials in their standard state (at 25 °C, 100 kPa) | |
| Infobox disclaimer and references | |

(http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/_icsc04/icsc0425.h)

- NIOSH Pocket Guide to Chemical Hazards (<http://www.cdc.gov/niosh/npg/npgd0166.html>)
- IARC Monograph "Cyclohexanone" (<http://www-cie.iarc.fr/htdocs/monographs/vol47/47-04.htm>)

- Links to external chemical sources

Retrieved from "<http://en.wikipedia.org/wiki/Cyclohexanone>"

Categories: Ketones | IARC Group 3 carcinogens | Organic compound stubs

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